Remarks

In view of the above amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

The rejection of claims 1-3 and 7-9 under 35 U.S.C. § 112 (first paragraph) as containing new matter is respectfully traversed in view of the above amendments.

The rejection of claims 1-3 and 7-9 under 35 U.S.C. § 112 (second paragraph) for indefiniteness is respectfully traversed in view of the above amendments.

The rejection of claims 1-5 and 7-9 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,776,889 to Wei et al. ("Wei I") is respectfully traversed.

Wei I teaches the application of a hypersensitive response elicitor protein or polypeptide to plants whereby the treated plant is rendered disease resistant (i.e., resistant to pathogens). Wei I provides a number of examples for the treatment of different plants with HrpN of *Erwinia amylovora*. In each of the examples, however, the treated plants were grown under greenhouse conditions. Nowhere does Wei I teach or suggest growing the treated plants under drought conditions.

The U.S. Patent and Trademark Office ("PTO") has taken the position that the invention of claim 1 is inherently taught by Wei I even though the plants never experienced drought stress. To establish that a reference inherently anticipates a claim, it must be demonstrated that the reference necessarily functions in accordance with the limitations of a claim. See In re Cruciferous Sprout Litigation v. Sunrise Farms, 301 F.3d 1343, 1349 (Fed. Cir. 2002). Claim 1 presently recites "applying a hypersensitive response elicitor protein or polypeptide in a non-infectious form to a plant, and growing the plant under drought conditions...." Because the PTO acknowledges that the plants of Wei I were never grown under drought stress conditions (they were actually grown under greenhouse conditions), this method step cannot *necessarily* be taught in Wei I. Hence, it is impossible to conclude that the presently claimed method of imparting drought stress tolerance to plants as recited in claim 1 is inherently taught by Wei I.

For this reason, the rejection of claims 1-5 and 7-9 as anticipated by Wei I is improper and should be withdrawn.

The rejection of claims 1-5 and 7-9 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,859,324 to Wei et al. ("Wei II") is respectfully traversed.

Wei II is substantially identical in disclosure to Wei I, the teachings of which are set forth above. For substantially the same reasons why Wei I fails to inherently anticipate the presently claimed invention, Wei II likewise fails to inherently anticipate the presently claimed invention. Therefore, the rejection of claims 1-5 and 7-9 as anticipated by Wei II is improper and should be withdrawn.

The rejection of claims 1-5 and 7-9 under the judicially-created doctrine of obviousness-type double patenting over claims 1-3, 5, 9-20, 28-29, 33, and 35 of U.S. Patent No. 6,277,814 to Qiu et al. ("Qiu") is respectfully traversed.

Claim 1 of Qiu recites a method of enhancing the growth of plants that includes the step of "applying a hypersensitive response elicitor polypeptide or protein in noninfectious form to a plant or plant seed under conditions effective to enhance growth of the plant or plants grown from the plant seed, compared to an untreated plant or plants seed, wherein the hypersensitive response elicitor protein or polypeptide is heat stable, glycine rich, and contains no cysteine." None of claims 2, 3, 5, 9-20, 28-29, 33, or 35 specify that the plant or plants grown from the plant seed are actually grown under drought stress conditions.

The PTO has taken the position that the presently claimed invention is not patentably distinct over the above-listed claims of Qiu because those claims inherently teach the presently claimed invention. Because a demonstration of inherency requires the PTO to show that the cited reference *necessarily* teaches all the limitations of the presently claimed invention, applicants submit that the PTO cannot demonstrate that the presently claimed invention is inherently taught by Qiu. Neither claim 1 of Qiu nor any of claims 2, 3, 5, 9-20, 28-29, 33, and 35 of Qiu specify that the plant or plant seed is grown under drought conditions. Because growth enhancement does not *necessarily* require drought stress conditions, it cannot be said that the invention recited in claims 1-3, 5, 9-20, 28-29, 33, and 35 of Qiu would *necessarily* result in performing the step of "growing the plant under drought conditions..." as presently recited in claim 1. Because it is impossible to conclude that the method of imparting drought stress tolerance to plants as recited in claim 1 is inherently taught by the claimed invention of Qiu, the obviousness-type double patenting rejection of claims 1-5 and 7-9 is improper and should be withdrawn.

The rejection of claims 1-5 and 7-9 under the judicially-created doctrine of obviousness-type double patenting over claims 1-24 of Wei I is respectfully traversed.

Claim 1 of Wei I recites a method of imparting pathogen resistance to plants that includes the step of "applying externally to a plant a hypersensitive response eliciting

bacterium, which does not cause disease in that plant, or a hypersensitive response eliciting polypeptide or protein, wherein the hypersensitive response eliciting polypeptide or protein corresponds to that derived from a pathogen selected from the group consisting of *Erwinia amylovora, Erwinia chrysanthemi, Pseudomonas syringae, Pseudomonas solanacearum, Xanthomonas campestris,* and mixtures thereof." None of claims 2-24 specify that the recited plant (treated with the hypersensitive response eliciting bacterium or the hypersensitive response eliciting polypeptide or protein) is actually grown under drought stress conditions.

The PTO has taken the position that the presently claimed invention is not patentably distinct over the above-listed claims of Wei I because those claims inherently teach the presently claimed invention. Because a demonstration of inherency requires the PTO to show that the cited reference *necessarily* teaches all the limitations of the presently claimed invention, applicants submit that the PTO cannot demonstrate that the presently claimed invention is inherently taught by Wei I. Neither claim 1 of Wei I nor any of claims 2-24 of Wei I specify that the plant is grown under drought conditions. Because the development of pathogen resistance does not *necessarily* require drought stress conditions, it cannot be said that the invention recited in claims 1-24 of Wei I would *necessarily* result in performing the step of "growing the plant under drought conditions..." as presently recited in claim 1. Because it is impossible to conclude that the method of imparting drought stress tolerance to plants as recited in claim 1 is inherently taught by the claimed invention of Wei I, the obviousness-type double patenting rejection of claims 1-5 and 7-9 is improper and should be withdrawn.

The rejection of claims 1-5 and 7-9 under the judicially-created doctrine of obviousness-type double patenting over claims 1-18 of Wei II is respectfully traversed.

Claim 1 of Wei II recites a "pathogen-resistant plant to which a hypersensitive response eliciting bacterium, which does not cause disease in that plant, or a hypersensitive response eliciting polypeptide or protein has been applied, wherein the hypersensitive response eliciting polypeptide or protein corresponds to that derived from a pathogen selected from the group consisting of *Erwinia amylovora, Erwinia chrysanthemi, Pseudomonas syringae, Pseudomonas solanacearum, Xanthomonas campestris,* and mixtures thereof." None of claims 2-18 specify that the claimed plant is actually grown under drought stress conditions.

The PTO has taken the position that the presently claimed invention is not patentably distinct over the above-listed claims of Wei II because those claims inherently

teach the presently claimed invention. Because a demonstration of inherency requires the PTO to show that the cited reference *necessarily* teaches all the limitations of the presently claimed invention, applicants submit that the PTO cannot demonstrate that the presently claimed invention is inherently taught by Wei II. Neither claim 1 of Wei II nor any of claims 2-18 of Wei II specify that the plant is grown under drought conditions. Because the pathogen resistant plant does not *necessarily* require drought stress conditions to develop such pathogen resistance, it cannot be said that the invention recited in claims 1-18 of Wei II would *necessarily* result in performing the step of "growing the plant under drought conditions..." as presently recited in claim 1. Because it is impossible to conclude that the method of imparting drought stress tolerance to plants as recited in claim 1 is inherently taught by the claimed invention of Wei II, the obviousness-type double patenting rejection of claims 1-5 and 7-9 is improper and should be withdrawn.

In view of the all of the foregoing, applicants submit that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450, on the date below.

10/1/03 Wendy L. Barry

Date Wendy L. Barry